



Rocky Mountain Engine Academy

2017 PRE-TEST

Name _____ Agency/Home Unit _____

Final Score: / 50

Maintenance

1. What Engine Academy drill did Jesus Valdez from Kaibab E 713 say helped him as the driver in his vehicle collision? (1pt)
 - A. Dog Maneuvers
 - B. Lane Change
 - C. Figure 8
 - D. Danger Zone

2. According to your states CDL Manual, along with brake and electrical connections to trailer, trailer coupling devices, and cargo securement devices, what critical items should you check on your apparatus when you stop? (1pt)
 - A. Tires, transmission, brakes, fuel level and wiper blades
 - B. Tires, axles, brakes, lights and oil level
 - C. Tires, wheels and rims, brakes, lights and reflectors
 - D. Tires, bumpers, sirens, lights and brake fluid

3. A driver shall drive (with a few exceptions) only if they have had at least how many consecutive hours off duty before beginning a shift? (1pts)

4. Excessive speed was a factor in the rollover of Lassen Engine 11 on the Stanza fire. (1pt)
 - A. TRUE
 - B. FALSE

5. Kaibab Engine 713 was responding to a fire when they were hit by an oncoming vehicle. (1pt.)
 - A. TRUE
 - B. FALSE

6. Multiple drivers in a single vehicle may drive up to the duty-day limitation provided no driver exceeds the individual driving (behind the wheel) time limitation of 16 hours. (1pt)
 - A. TRUE
 - B. FALSE

7. What three things add up to total stopping distance? (3pt)
8. A cracked/broken or missing leaf spring on your apparatus is considered what? (1pt)
- A. Critical (out of service)
 - B. Non critical (fix when opportunity arises)
9. Driving a heavy engine without a current medical certificate is an Out-of-Service violation. (1pt)
- A. TRUE
 - B. FALSE
10. After your daily check you start your engine to go patrol. As you pull out you notice your oil pressure light on, and the gauge fluctuating. What should you do? (1pt)
- A. Continue driving to see if light goes off.
 - B. Pull over and let it idle.
 - C. Pull over immediately and shut off engine.
 - D. Continue because gauge is still showing pressure.
11. Damage is apparent on the primary and secondary ply of an air or hydraulic hose. What would this be considered? (1pt)
- A. Critical (out of service)
 - B. Non critical (fix when opportunity arises)
12. You are considered Out-of-Service if you do not have turn signals on the front or rear of your engine but you do have tail lights. (1pt)
- A. TRUE
 - B. FALSE
13. A ½ inch crack in a Frame Member Side Rail is considered Out-of-Service. (1pt)
- A. TRUE
 - B. FALSE
14. As a driver with a Commercial Learner's Permit, driving while not accompanied by the holder of a valid CDL is an Out-of-Service Violation. (1pt)
- A. TRUE
 - B. FALSE
15. If the friction surface on a hydraulic or air brake system is contaminated by oil or grease the vehicle is considered Out-of-Service. (1pt)
- A. TRUE
 - B. FALSE

16. Driving any vehicle without corrective lenses as indicated on your driver's license is considered Out-of-Service. (1pt)

A. TRUE

B. FALSE

17. Which size hose has the least friction loss per 100' section at a given flow: (1pt)

A. 1"

B. 1 1/2"

C. 3/4"

D. All of the above

18. 2 PSI of water pressure will lift water approximately _____ feet vertically. (1pt)

A. 1 ft.

B. 2 ft.

C. 4 ft.

D. 6 ft.

19. A pressure of 36 pounds per square inch (psi) in a 1" hose is greater than the pressure of 36 pounds per square inch in a 1 1/2" hose due to the greater number of square inches in the larger hose. (1pt)

A. TRUE

B. FALSE

20. Write down the standard formula for calculating pump discharge pressure. (1pts)

21. If flow (in GPM) is decreased in a length of hose, what happens to FL? (1pt)

A. Remains the same

B. Increases

C. Decreases

D. Drops to zero

22. KK-Type combination nozzles require a working Nozzle Pressure of _____ PSI. (1pt)

A. 50

B. 75

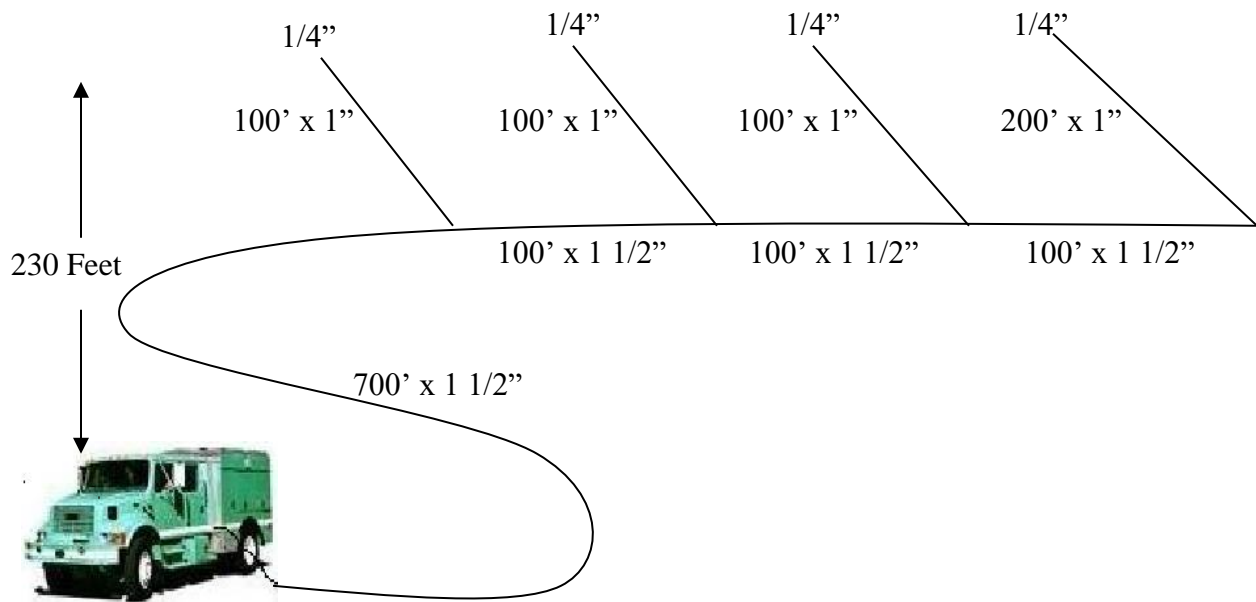
C. 100

D. 150

Name: _____

23. Calculate Friction Loss for a 100' section of 1" hose that has 30 GPM flowing through it. (1pt)

24. Calculate pump discharge pressure for the following hose lay. (show all work) (10pts)



PDP=_____

25. Match the valve #'s for the Standard Valves. (15 pt.)

NUMBERS	FUNCTIONS
#1 _____	A – Pump Transfer
#2 _____	B – Low Volume Gravity
#3 _____	C – Pump to Tank
#4 _____	D – Gravity Tank Drain
#6 _____	E – Pump and Plumbing Drain
#7 _____	F – Hose Reel
#8 _____	G – Tank to Pump
#11 _____	H – Clean Water Discharge
#12 _____	I – Engine Cooler
#13 _____	J – Overboard Suction
#15 _____	K – Pump Bypass
#16 _____	L – Overboard Discharge
#17 _____	M – Adj. Pressure Relief
#18 _____	N – Pump Coolant Cleanout
#19 _____	O – Primer Valve